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PHOTONIC SWITCH USING TIME-SLOT INTERCHANGE

ABSTRACT OF THE DISCLOSURE

An optical data stream is converted to electrical signals which are applied to a time-slot interchanger. The time-slot interchanger reorders the packets or cells of the data stream to correspond to the schedule of an optical switch. The time-slot interchanger may contain a plurality of FIFOs implemented as circular buffers in a single dual port memory. The switch schedule may be determined by the average load between inputs and outputs and may be determined by the number of packets or cells queued from each input or each output in the time-slot interchangers.